



Public Works Department

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February 13, 2009

Gerard J. Thibeault, Executive Officer  
California Regional Water Quality Control Board  
Santa Ana Region  
3737 Main Street, Suite 500  
Riverside, CA 92501-3348

**Subject: First Draft of Order No. R8-2008-0030 (NPDES No. CAS618030), Orange County Areawide Stormwater NPDES (National Pollutant Discharge Elimination System) Permit**

Dear Mr. Thibeault:

The City of Irvine would like to express our appreciation for the opportunity to comment on draft Tentative Order No. R8-2008-0030 (NPDES No. CAS618030). We have especially appreciated the opportunity to meet with you, your staff, and other stakeholders to discuss the low impact development (LID) and hydromodification portions of the draft order. We are looking forward to working with your staff, the principal permittee, our co-permittees, and other stakeholders, to develop a program that will ensure continued improvements to surface water quality while providing a way forward for well planned future development and redevelopment. As a result of our recent meetings on new development and significant redevelopment, we understand the fourth term MS4 permit may be amended at some point in the future. However, the comments provided in this letter and attached comment table (Attachment 1) and set forth in Attachment 2, which summarizes our understanding of the conceptual discussions of the new development and redevelopment LID and hydromodification control requirements, are based on the November 10, 2008 First Draft of Order No. R8-2008-0030 ("draft tentative order").

We have analyzed the draft tentative order to determine if: 1) it is technically feasible for the City and others to comply; and 2) sufficient resources are available for compliance. We believe it will be difficult for many of the permittees to continue growing the stormwater program considering the current economic crisis. It is essential, therefore, that a permit is adopted which will result in continuing water quality improvements while recognizing current economic constraints.

Attachment 1 to this letter, the comment table, contains detailed comments on the entire draft tentative order. Attachment 2 focuses on the City's comments and analysis of LID and hydromodification control concepts. Attachment 2 comments have been substantially improved by the stakeholder meetings held during the public comment period, and the expert information, including white papers, reports prepared for the Ventura region, redlined draft tentative order language, conceptual comments, a watershed planning

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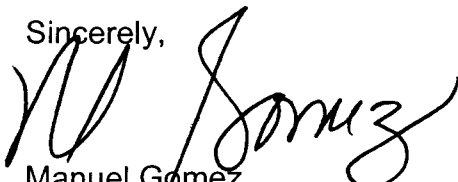
framework, and other reports and information submitted in those meetings by a variety of stakeholders and experts, including Dr. Richard Horner, Dr. Eric Strecker, Geosyntec Consultants, Orange County Coast Keeper, Latham & Watkins and the National Resources Defense Council.

By necessity, the City prepared the comments in this letter and in Attachments 1 and 2 to this letter concurrently with the preparation of comments on the draft tentative order by the County of Orange, the principal permittee. This week we had the opportunity to review the County's comment letter dated February 13, 2009, and Attachments A, B, and C to that letter. The City adopts and supports those comments submitted by the principal permittee. Because the City and County needed to prepare comments concurrently, the City's comments in this letter and its attachments may overlap to some extent with those submitted by the County. Other comments submitted today by the City address issues and concerns that the County comments do not address, or address the same on similar issues and concerns, but provide a slightly different or more detailed perspective on those issues. To the extent that the City's comments in this letter and its attachments overlap with and address exactly the same issues, the City, of course, would be pleased to review responses prepared to County comments in the event that such an approach assists the Regional Board staff in streamlining the process of preparing responses to comments.

We encourage the Regional Board to consider the comments in this letter and attachments which we believe will result in a permit that will continue to improve water quality while meeting the needs of the co-permittees, residents, and other stakeholders in Orange County.

If you have any questions or need additional information, please contact Mike Loving, Water Quality Administrator, at (949) 724-6315.

Sincerely,



Manuel Gomez  
Director of Public Works

Attachments:      1. Comment table  
                         2. Low impact development & hydromodification comments

cc:     Mark Carroll, P.E., City Engineer  
         Marcia Beckett, Fiscal & Environmental Programs Administrator  
         Mike Loving, Water Quality Administrator  
         Eric Tolles, Deputy Director of Community Development  
         Joe Kirkpatrick, Deputy Building Official  
         Michael Yang, Water Quality Engineer  
         Angie Burgh, Management Analyst  
         Glen Worthington, Great Park Manager of Planning  
         Chris Crompton, County of Orange

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1	A.5.c	3	The permittees have the authority to levy service charges, fees, or assessments to pay for compliance with this order.	This finding should recognize that assessments to pay for compliance with the Order when adopted are subject to approval by voters, which may or may not be granted. In that regard, referencing the City of Santa Cruz in the footnote is a poor example of the ability of cities to raise taxes to fund storm water programs. Of all the cities in California, only a handful, including San Clemente, may be able to convince voters to allow taxes to be raised to fund a stormwater program. In light of the rapidly expanding crisis in the economy, this is even less likely than it was on November 4.	Remove A.5.c entirely or reference a more realistic example of raising funds to comply with this order.  Cities have had limited success getting approval from voters for new or increased fees for storm water programs, including the City of Encinitas in March 2006 which could not pass a \$5/month fee increase (61% of votes against the measure).
2	C.8	3	This order is intended to regulate the discharge of pollutants in urban storm water runoff from anthropogenic (generated from human activities) sources and/or activities within the jurisdiction and control of the permittees and is not intended to <u>address background or naturally occurring pollutants or flows.</u>	Finding 8 is indicates an appropriate focus of the draft tentative order, which is consistent with the Clean Water Act. Unfortunately, Section XVIII is not consistent with Finding 8. Selenium in rising groundwater is an example of a naturally occurring pollutant this order does address in Section XVIII. Selenium in rising groundwater entering channels via seeps should be addressed under the TMDL and NSMP program, rather than via requirements in this permit.	Revise the requirements of Section XVIII as necessary for consistency with Finding 8.
3	C.10	4	The permittees may lack legal jurisdiction over urban runoff into their systems from some state and federal facilities, utilities and special districts, Native American tribal lands, waste water management agencies and other point and non-point source discharges otherwise permitted by the Regional Board. <u>The Regional Board recognizes that the permittees should not be held responsible for such facilities and/or discharges.</u> Similarly, certain activities that generate pollutants present in urban runoff may be beyond the ability of the	Finding 10 appropriately recognizes legal limitations of co-permittees in operating MS4s. Unfortunately, certain requirements of Section XVIII appear to be inconsistent with Finding 10 to the extent, for example, that they require co-permittees to address, for example, nonpoint source selenium in rising groundwater. Similarly, requirements of Section III.3 mandating that co-permittees prohibit introduction into channels of rising groundwater and natural springs, and uncontrolled runoff from agricultural areas are inconsistent with practical	Eliminate inconsistencies between draft tentative order findings and requirements.  Encourage state institutions such as UCI to join the NSMP and other applicable watershed efforts.

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			<p>permittees to eliminate. Examples of these include operation of internal combustion engines, atmospheric deposition, brake pad wear, tire wear and leaching of naturally occurring minerals from local geography.</p>	<p>and regulatory limitations on the co-permittees' ability to control the introduction of flows into the MS4s. Section XVIII of the draft Order also contains provisions that exceed the legal and practical authority of the co-permittees to control. For example, Section XVIII requirements hold co-permittees responsible for pollutants such as copper in the receiving waters even if it's beyond their ability to eliminate those pollutants.</p> <p>Also, in certain circumstances, the Regional Board has authority to require parties to participate in the control of pollutants entering MS4s that the co-permittees do not possess. For example, the agencies in the NSMP Working Group will be responsible for creating and implementing a plan for reducing levels of naturally occurring selenium naturally seeping into channels and receiving waters. However, some large state institutions, such as UCI, have not participated in NSMP and do not appear to have a responsibility to share in the costs associated with removing selenium seeping into receiving waters. Finding 10 seems to indicate that the NSMP stakeholders should not be responsible for encouraging or requiring facilities such as UCI, which occupies more than two square miles in the Newport Bay Watershed, to bear their proportionate share for controlling the seepage.</p>	
4	E.16.b	6	<p>A Proposed Plan of Storm Water Quality Management Activities for 2007-2012, as outlined in the <u>Draft 2007 Drainage Area Management Plan (DAMP)</u>. The 2007 DAMP includes all the activities the permittees propose to undertake during the next MS4 permit term, goals and objectives of such activities, an evaluation of the need for additional</p>	<p>The co-permittees have not seen the entire Draft 2007 DAMP, only the 2006 Report of Waste Discharge (ROWD). It's impossible, therefore, for the co-permittees to provide constructive comments on anything in the draft order referencing the Draft 2007 DAMP other than the ROWD.</p>	<p>Ensure the co-permittees have had an opportunity to review and approve the entire Draft 2007 DAMP prior to adoption or clarify that the 2007 DAMP is intended to mean the 2006 Report of Waste Discharge (ROWD).</p>

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			source control and/or structural and non-structural BMPs and proposed pilot studies;		
5	F.18	6	...The permittees have jurisdiction over and/or maintenance responsibility for storm water conveyance systems within Orange County. The County's systems include an estimated 400 miles of storm drains...	This indicates there are an estimated 400 miles of storm water conveyance systems in Orange County under the Regional Board's jurisdiction. This is the same number of miles in the current permit. The number should have increased somewhat in the last six years.	Update the number of miles of storm water conveyance systems in Orange County under the Regional Board's jurisdiction, if necessary.
6	G.21	8	Federal regulations, 40 CFR 131.10(a), prohibits the states from designating a water body for waste transport or waste assimilation. <u>This order prohibits the construction of treatment BMPs within waters of the US.</u> However, if the discharges are sufficiently treated to protect the beneficial uses of the receiving waters, further polishing of the discharge within waters of the US may be considered on a case-by-case basis...	The current language of the draft Order is overly broad, and appears to prohibit measures such as trash booms and Natural Treatment System facilities that are installed in retrofitted channels and basins, which are considered treatment control BMPs. References to the water quality benefits provided by NTS Facilities, retrofitting of flood control channels and basins, and installation of trash booms in receiving waters contained elsewhere in the draft order are inconsistent with the broad prohibition set forth in this finding.	Please eliminate or narrow the overly broad prohibition against natural and structural treatment BMPs.
7	H.30	11	To avoid duplicative efforts, the permittees need not inspect facilities that have been inspected by Regional Board staff, if the inspection was conducted during the specified time period. It is anticipated <u>that many of the inspections required under this order can and will be carried out by inspectors currently conducting other types of inspections for the permittees (i.e., grading, building, code enforcement, etc.), during their normal duties.</u>	While we agree with the Regional Board's conclusion that co-permittees should not be required to inspect facilities already inspected by Regional Board staff to minimize inefficient expenditures, the underlined wording implies that additional duties added to current inspections do not lead to additional workload or activities by City staff, requiring additional City resources to implement. This is not true since documentation of the inspection and follow-up on the findings result in additional work hours and as a result funding.	Remove underlined language since it is incorrect.
8	I.38	13	...The permittees also organize solid waste collection programs, household hazardous waste collections, and recycling programs to reduce litter and illegal discharges. Additionally, <u>the permittees have installed debris booms at a number of locations</u> to capture trash and debris preventing it	(see comment for Item G.21 above)	Please clarify

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			from depositing on beaches.		
9	J.43	15	TMDLs have been established by the Regional Board for sediment, fecal coliform, diazinon, chlorpyrifos and nutrients for the San Diego Creek/Newport Bay watershed...	It was our understanding that, henceforth, the San Diego Creek/Newport Bay watershed, will simply be referred to as the Newport Bay Watershed.	Please clarify
10	K.55	18	The permittees have adopted grading and erosion control ordinances, guidelines and best management practices (BMPs) for municipal, commercial, and industrial activities.	The co-permittees have not adopted BMPs but instead the DAMP and LIP contain adopted guidelines for implementation of minimum BMPs. The distinction is important, since the points of consensus reached by stakeholders with respect to the new development and redevelopment provisions if adopted by the Regional Board would result in new, more stringent requirements governing specification of minimum BMPs for this MS4 permit term. Therefore, we suggest revising the draft tentative order language as suggested.	Revise to read <i>The permittees have adopted grading and erosion control ordinances and guidelines for the implementation of minimum best management practices (BMPs) for municipal, commercial, and industrial activities.</i>
11	K.56	18	...The ultimate goal of the urban storm water management program is to support the attainment of water quality objectives for the receiving waters and to protect beneficial uses through the implementation of the DAMP. The permittees developed and submitted a revised draft 2007 DAMP.	The co-permittees have not seen the Draft 2007 DAMP, only the 2006 Report of Waste Discharge (ROWD). Therefore, it's impossible for the co-permittees provide constructive comments on anything in the draft order referencing the Draft 2007 DAMP.	Ensure the co-permittees have had an opportunity to review and approve the Draft 2007 DAMP prior to adoption, or that reference is made to the 2006 ROWD
12	L.	19	NEW DEVELOPMENT/SIGNIFICANT REDEVELOPMENT – WQMP/LIP/LID	Throughout the draft order, there should be a distinction between <i>model</i> /WQMP and <i>project</i> WQMP	Please differentiate between <i>project</i> WQMP and <i>model</i> /WQMP
13	L.61	19	...Southern California Coastal Water Research Project (SCCWRP) under the auspices of Storm Water Monitoring Coalition and in collaboration with the California Storm Water Quality Association (CASQA) and the State Board is developing a Low Impact Development Manual for Southern California...	It's our understanding that SCCWRP is not developing the Low Impact Development Manual for Southern California.	Please clarify

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14	L.62	19-20	<p>The USEPA has determined that by limiting the effective impervious area of a development site to 5% or less, downstream impacts could be minimized (also see the SCCWRP study). A limited study conducted by Dr. Richard Horner concluded that a 3% EIA standard for development is feasible in Ventura County. These principles are incorporated into requirements for new developments and redevelopment projects.</p>	<p>USEPA has not determined that prescriptively limiting EIA to 5% or less is the best way to minimize receiving water impacts in all watersheds and for all physical conditions, and in several other regions has concurred in the adoption of different performance standards for low impact development and hydrological control. Further, while Dr. Horner reached the conclusion stated in studying Ventura County, the white papers prepared by Geosyntec for this process, and the white paper submitted to the Los Angeles Regional Board addressing case studies in Ventura County entitled January 2009 LID Metrics in Stormwater Planning, which were submitted during the stakeholder meetings convened by the Regional Board on the new development and significant redevelopment provisions of the draft tentative order indicate that a 3% EIA standard may be inappropriate for incorporation into the Permit.</p> <p>As noted in the County's comments on this draft tentative order dated February 13, 2009, (the "County Comments"), Dr. Horner and Dr. Eric Strecker from Geosyntec have reached consensus regarding the effectiveness of substituting design volume standards for low impact development controls in place of the EIA standards referenced in this finding. We concur with the consensus reached by the experts as outlined in the County comments</p> <p>We further concur with the principal permittee that, in order to resolve current uncertainty and ensure that the technically valid and environmentally appropriate low impact development and hydromodification control objectives for the land</p>	<p>Revise this finding to recognize, at a minimum, the other studies, white papers, and information submitted to the Regional Board as a part of the recent stakeholder process, which analyze the issues created by EIA and percolation /infiltration related performance standards, and show alternative and equally protective metrics are available to govern implementation of LID and hydromodification control measures on development and redevelopment projects.</p> <p>The New Development and Significant Redevelopment provisions of the draft tentative order should also be revised to:</p> <ul style="list-style-type: none"> <li>• Substitute the 85<sup>th</sup> percentile design volume treatment performance standard for LID implementation as agreed upon by stakeholders in place of currently proposed EIA or percolation related performance standards; and</li> <li>• Identify more specifically the range of appropriate circumstances in which development projects should be exempt from LID implementation, hydromodification control, and/or infiltration or percolation performance standards due to technically or environmentally undesirable conditions (<i>e.g.</i> project sites with very shallow or highly contaminated groundwater); and</li> <li>• Allow co-permittees to develop the most suitable long-term, subwatershed and watershed approach to LID implementation and hydromodification control by incrementally adding to ongoing watershed plans and the DAMP specific components</li> </ul>

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				<p>development program are established, there needs to be an opportunity to develop an appropriate approach for Orange County through a stakeholder driven process that incorporates information regarding physically appropriate areas within the Newport Bay watershed to accomplish recharge, percolation and infiltration, identifies surface water channels that are potentially susceptible to hydromodification impacts, and incorporates other information and input from those engaged in design and implementation of LID based practices to determine the best subwatershed and watershed based approaches to treatment and hydrologic controls. In addition to resolving areas of technical uncertainty, such a process would also provide an opportunity to integrate stormwater management into efforts to better conserve water supply, and to comply with other mandates, including TMDLs.</p> <p>Please see Attachment 2 for additional comments.</p>	<p>to address LID implementation and hydromodification control. These watershed planning components should derive appropriate LID and hydromodification control performance standards based on, among other appropriate considerations, (i) physical characteristics of this watershed (<i>i.e.</i>, mapping of areas appropriate for infiltration and channels susceptible to hydromodification); and (ii) stakeholder input.</p> <ul style="list-style-type: none"> <li>The Order should specify a defined timeline and goal(s) for the stakeholder process to develop LID implementation and hydromodification control standards, as well as specific and sufficient timelines for action by co-permittees to incorporate the performance standards developed via the process into ongoing watershed planning, the DAMP and the LIPs. During the time that the process is ongoing, the 85<sup>th</sup> percentile design volume standard would serve LID implementation, achieving increased treatment and greater runoff volume reductions than currently required to provide enhanced protection to surface waters of the region.</li> </ul>
15	L.66	21	The treatment control BMPs include vortex systems, catch basin inserts, detention basins, regional treatment systems, constructed wetlands, various types of storm water filters, etc. If not properly designed and maintained, these systems could be sources of groundwater pollution and could become a nuisance and/or cause the spreading of surface water...	LID BMPs are generally considered by experts to provide enhanced water quality treatment for runoff, and therefore the City of Irvine supports more stringent requirements in the Draft Permit, the DAMP and LIPs to increase the use of those technologies. However, LID infiltration BMPs, if implemented in areas with inappropriate physical conditions, including shallow groundwater,	Revise findings to indicate technical and environmental constraints on LID infiltration BMPs to address the fact that LID BMPs, like conventional BMPs, if not properly designed and maintained, could be sources of nuisance, groundwater waste and pollution, or surface water pollution.

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				improper soils, unstable geotechnical areas, or areas of groundwater contamination, or if not properly designed and maintained could be sources of undesirable increases in groundwater exfiltration, geotechnical failures, and/or groundwater pollution (from pesticides, for example) and could become a nuisance and/or cause groundwater waste, increased surface flow inundation, or the introduction of pollutants into groundwater and/or into surface waters.	These findings will, in turn, support a more clearly delineated list of circumstances where implementation of conventional BMPs will be more appropriate, and where exceptions to implementation of LID BMPs should be approved by co-permittees.
16	L.67	21	If not properly designed and maintained, the BMPs identified in Finding 65 could create a nuisance and/or habitat for vectors...	LID infiltration BMPs, If not properly designed and maintained, could create a nuisance and/or habitat for vectors.	Revise findings to add LID infiltration BMPs to the list of BMPs that, If not properly designed and maintained, could create a nuisance and/or habitat for vectors. Such a finding will help assure DAMP attention to proper maintenance of LID BMPs to control vectors.
17	M.68	21	The MS4s generally contain non-storm water flows such as irrigation runoff, runoff from non-commercial car washes, runoff from miscellaneous washing and cleaning operations, and other nuisance flows generally referred to as de-minimus discharges. Federal regulations , 40 CFR Part 122.26(d)(2)(i)(B), prohibit the discharge on non-storm water containing pollutants into the MS4s and to waters of the U.S. unless they are regulated under a separate NPDES permit, or are exempt, as indicated in Discharge Prohibitions, Section III.3 of this order. The Regional Board adopted a number of NPDES permits to address de-minimus type of pollutant discharges. However, the permittees need not get coverage under the de-minimus permits for the types of discharges listed under Section III.3 except for discharges to the San Diego Creek/Newport Beach watershed, as long as they are in compliance with the conditions specified under Section III of this order.	Finding 68 states that the permittees need not get coverage under the de-minimus permits for the types of discharges listed under Section III.3, except for discharges to the San Diego Creek/Newport Beach watershed. This can be interpreted to mean that all de-minimus discharges are prohibited for San Diego Creek/Newport Beach watershed without the de-minimus permit.	<p>The language should be clarified to state that for the types of discharges listed under Section III.3, only those discharges addressed by the de-minimus permit in the San Diego Creek/Newport Beach watershed, including, for example, groundwater discharges and discharges associated with water line testing and flushing, require compliance with the de-minimus permit.</p> <p>The City further supports the County comments noting that the structure and requirements of Section III.3 should be revised to comport with federal regulations, which permit de-minimus discharges unless a finding is made that those discharges are a significant source of pollutants, and which specify a slightly different list of discharges to MS4s that should be considered de-minimus than that currently specified in the Draft Permit.</p>

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18	M.69	21-22	Many areas of San Diego Creek/Newport Bay watershed have high nitrate and/or selenium levels in the soils and/or groundwater. Dewatering operations, construction activities and agricultural and other operations could mobilize these pollutants and carry them into the San Diego Creek and Newport Bay...	LID infiltration BMPs can also potentially mobilize nitrogen and selenium in the groundwater and carry them into the San Diego Creek and Newport Bay.	The findings, either here or perhaps in Finding 65 discussed above, should recognize that LID infiltration BMPs can potentially mobilize nitrogen and selenium in the groundwater and carry them into the San Diego Creek and Newport Bay. Such a finding supports the City's view that the draft tentative order should contain an exception to use of LID BMPs and application of infiltration standards in those circumstances where their use and application might result in mobilization of groundwater pollutants, including Nitrogen and Selenium.
19	N.71	22-23	The principal permittee in collaboration with the co-permittees is required to develop guidelines for defining the expertise and competencies for various positions and training programs and schedules for training for these positions. The permittees are required to document procedures used to determine the defined competencies for each storm water position (this may be accomplished through a test at the end of the training program or through an on-the-job testing procedure).	We agree all City staff involved in the stormwater program must be trained and have the tools necessary to perform their specific tasks. We do not agree, however, that formal testing and certifications are the only way to validate competency, and we need flexibility in the methods used to assess competency of personnel to comport with labor and employment regulations and contract requirements. Further, we concur with the County comments that, based on core competencies mutually developed by the co-permittees, the best, and most cost-effective training for our particular city can best be provided not by the principal permittee or one of their consultants, but instead by the City's experienced program management staff.	Revise this finding and add an option to enable individual co-permittees to provide in-house training using curriculum developed by the principal permittee in collaboration with the co-permittees.
20	O.74	23	...This order includes requirements for the control of trash and debris, for street sweeping, and for drainage facilities maintenance. The permittees have already installed eleven trash and debris booms in flood control channels...	(see comment for Item G.21 above)	Please clarify
21	O.76	24	Successful implementation of provisions and limitations in this order will require the cooperation of public agency organizations within Orange	The City of Irvine supports active cooperation among public agencies and stakeholders as the most effective means of addressing water quality	Encourage state institutions and other major dischargers in the watershed, such as UCI, to join the NSMP and other applicable watershed

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			County having programs/activities that have an impact on storm water quality. A list of these organizations is included in Attachment C. As such, <u>these organizations should actively participate</u> in implementing the Orange County NPDES Storm Water. The Regional Board has the discretion and authority to require the discretion and authority to require certain non-cooperating entities to obtain coverage under a Phase II MS\$ permit, or obtain an individual storm water discharge permits, pursuant to 40 CFR 122.26(a), or to agree to participate in this areawide permit.	issues and achieving improvement in the watershed, and agrees that all public agencies should actively participate. However, we suggest that more needs to be done to secure the participation of some of the larger public agencies within the watershed. UCI, for example, has not actively participated in the Newport Bay Watershed working groups even though they occupy more than two square miles in the watershed.	efforts.
22	R.83	26	Illegal discharges to the storm drains can contribute to storm water and surface water contamination. A reconnaissance survey of the municipal storm drain systems (open channels and underground storm drains) was completed by the permittees during the third term permit, the permittees significantly enhanced the programmatic framework for detecting and quickly controlling discharges into the MS4s. The permittees have initiated a dry weather monitoring program that is based on statistically derived benchmarks to detect illegal discharges and illicit connections. The program also facilitates public reporting of illegal and illicit discharges by providing 24-hour access to a toll free hotline...	What terms should be used: illegal discharges or illicit discharges; illegal connections or illicit connections? The terms should not be used interchangeably.	Determine correct/consistent terminology and use throughout the permit.
23	B.2	28	Review, approve, implement, and comment on all plans, strategies, management programs, and monitoring programs, as developed by the principal permittee or any permittee subcommittee to comply with this order.	The co-permittees have not yet had an opportunity to review and approve programs developed by the principal permittee. The draft 2007 DAMP (to the extent that is a document that was not included in the Draft ROWD), RBF's 2005 Retrofit Study and the Core Competencies training program are examples.	Ensure the co-permittees have had an opportunity to review and approve programs developed by the principal permittee prior to their adoption.
24	I.B.12	29	In collaboration with the co-permittees, develop guidelines for defining expertise and competencies	The competency of staff and the outcome of any evaluation of competency are confidential and	The permittees may commit to training and education of employees with a defined program

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			of storm water program managers and inspectors and develop and submit for approval a training program for various positions in accordance with these guidelines.	subject to other limitations and regulations. The requirement cannot be satisfied without exposure to liability and other violations.	in place, but cannot commit to providing any competency evaluation or reporting on the results of confidential documents that are part of an employees' performance.
25	III.3.i.I	30	However, where possible, when not interfering with health and safety issues, BMPs should be implemented (also see Section XIX, Provision 5)	As currently set forth in DAMP provisions collaboratively developed by the co-permittees and fire fighting agencies, BMPs should only be required during controlled fire exercises and/or training. BMPs should not be required, even as "where possible" for emergency situations.  Note: Provision 5 is in Section XXI, but this would be irrelevant since we request it be deleted entirely.	Delete second sentence in III.3.i.I
26	III.3.i.I	30	However, where possible, when not interfering with health and safety issues, BMPs should be implemented (also see Section XIX, Provision 5) Emergency fire fighting flows (i.e., flows necessary for the protection of life and property) do not require BMPs and need not be prohibited. However, where possible, when not interfering with health and safety issues, BMPs should be considered (also see Section XIX, Provision 5);	Section III.3 would require potable water discharge (i.e., fire hydrant flushing) to be captured, sampled and analyzed for chlorine and pH before it can be released. The release must be also volumetrically and velocity controlled. These requirements should be conformed to the requirements of the de-minimus permit governing these discharges, and a cross-reference to that permit rather than a statement of control requirements can avoid the unintentional creation of conflicting applicable discharge requirements for these flows.	Conform III.3.i.I to existing de-minimus permit requirements by cross-referencing that permit.
27	III.3.i.c	31	Irrigation water from agricultural sources	Agricultural sources are non-point sources, are not regulated or subject to NPDES permits under the federal Clean Water Act, and are not currently the subject of Waste Discharge Requirements or a Conditional Waiver of WDRs.  Part III of the draft tentative order requires the co-permittees to prohibit illicit/illegal discharges (non-storm water) from entering into the MS4 unless they are authorized by another NPDES permit, waste discharge requirements, or are not prohibited in accordance with Section III.3 of the	We request the Water Board to amend this provision to conform to the Clean Water Act regulations, and include the discharges that are enumerated in 40 C.F.R. 122.26(d)(2)9iv)(B)(1) which specifically include "irrigation water" but not "irrigation water from agricultural sources."  The category "irrigation water from agricultural sources" needs to be deleted from the tentative order and, instead, should be addressed through other Regional Board regulatory mechanisms.

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				<p>draft tentative order. As noted in the County comments, Section III.3.i should enumerate the specific discharges that are permitted unless they are substantial contributors of pollutants to the MS4 and the receiving waters. The Regional Board has included the discharge of "irrigation water from agricultural sources" in Section III.3.i.</p> <p>As noted in the County comments, we object to the provision as worded, since it reverses the presumption as set forth in the federal regulations and would require findings that certain de-minimus discharges are NOT significant sources of pollution prior to their discharge, rather than permitting de-minimus discharges unless a finding is made that they ARE significant sources of pollution.</p> <p>Also as noted in the County comments, we are concerned about the inclusion of agricultural runoff as a de-minimus discharge in this section of the draft tentative order, primarily because:</p> <ul style="list-style-type: none"> <li>• Federal regulations do not specify agricultural irrigation runoff as a de-minimus discharge to MS4 systems; and</li> <li>• In the absence of regulation of these discharges by the Regional Board, the City does not have information from the Regional Board regarding the quality of agricultural runoff flows, or the degree to which agricultural runoff may or may not be a significant source of pollution.</li> </ul>	
28	VI.1	34	Such legal authority must address all illegal connections and illicit discharges into the MS4s, including those from all industrial and construction sites.	The legal authority document (ordinance, etc.) give authority to the City to develop a program to control illicit discharges and illegal connections. However, the legal authority document does not set forth the	Revise the language of this requirement to indicate the role of the DAMP and LIPs in setting forth the program to address IC/IDs. Such legal authority must include the prohibition

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				specific components of the program, which need to be flexible and subject to ongoing update and revision. Therefore, it would be inappropriate for the legal authority document to fully "address" illegal connections or illicit discharges. Instead, the program for the identification or elimination of IC/IDs should be "addressed" through implementation of the program (LIP and/or DAMP). The legal authority can only provide the framework to prohibit and sanction IC/IDs. Legal authority should not be confused with procedures and methods to accomplish compliance.	of all illegal connections and illicit discharges into the MS4s, including those from all industrial and construction sites. The DAMP and LIPs should contain the program for control and preclusion of those discharges.
29	VI.1	34	Permittees' ordinances or other local regulatory mechanisms shall include sanctions and follow up inspection milestones to ensure compliance. Sanctions shall include but are not limited to: monetary penalties, non-monetary penalties, bonding requirements, and/or permit denials/revocations/stays for non-compliance. Follow up inspection milestones shall be consistent with applicable sections of this order. co-permittees' current ordinances shall have a provision for civil or criminal penalties for violations of their water quality ordinances.	The legal authority document (ordinance, etc.) is not the appropriate place for follow-up inspection milestones, because the ordinances that constitute legal authority documents are not flexible, and cannot be updated, revised or amended as needed to adaptively manage the City's water quality programs. Instead, the legal authority documents need to provide the framework and legal authority for the City to develop, implement, and revise as necessary its water quality programs. Any procedural milestones (inspections, etc.) should be retained as part of the implementation of the program (LIP and/or DAMP) or set forth in the Enforcement Consistency Guide, which can be implemented more adaptively than a water quality ordinance. Legal authority should not be confused with procedures and methods to accomplish compliance.	Please revise these requirements to make it clear that co-permittees' ordinances or other local regulatory mechanisms shall provide authority for sanctions, including monetary penalties, non-monetary penalties, bonding requirements, and/or permit denials/revocations/stays for non-compliance. Legal authority documents and co-permittees' current ordinances shall have a provision for civil or criminal penalties for violations of their water quality ordinances. But eliminate provisions that would require co-permittees to incorporate into their legal authority documents provisions governing inspections, milestones, inspection frequencies and other water quality program elements, which should appear in the DAMP, LIPs, and Enforcement Guidance documents.
30	VI.2	34	The permittees shall carry out inspections, surveillance, and monitoring necessary to determine compliance with their ordinances and permits. The permittees' ordinance <u>must include adequate legal authority to enter, inspect and gather evidence (pictures, videos, samples,</u>	The City agrees with the County comments that the draft tentative order could be interpreted to impose entry and inspection requirements on the co-permittees that would violate the Fourth Amendment.	We request that Part VI.2 be amended to state:  "The permittees shall carry out inspections, surveillance, and monitoring necessary to determine compliance with their ordinances and permits. The permittees' ordinance must include

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			<u>documents, etc.) from industrial, construction and commercial establishments. The permittees shall progressively and decisively take enforcement actions against any violators of their Water Quality Ordinance.</u> These enforcement actions must, at a minimum, meet the guidelines and procedures listed in the Enforcement Consistency Guide.	The underlined statement could particularly be interpreted to require the co-permittees to adopt inspection procedures and enforcement authority that would violate the Fourth Amendment's prohibition on illegal searches and seizures. The Fourth Amendment to the U.S. Constitution states, "The right of the people to be secure in the persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated; and no Warrants shall issue but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized."	adequate legal authority, to the extent permitted by California and Federal Law and subject to the limitations on municipal action under the constitutions of California and the United States, to enter, inspect and gather evidence (pictures, videos, samples, documents, etc.) from industrial, construction and commercial establishments..."
31	VI.6	34	The permittees shall continue to provide notification to Regional Board staff regarding storm water related information gathered during site inspections of industrial and construction sites regulated by the Statewide General Storm Water Permits and at sites that should be regulated under those Statewide General Permits. The notification shall be provided on a quarterly basis...	Section VI.6 requires quarterly reporting of any industrial and construction sites that have water quality violations. The quarterly reporting is unnecessary and burdensome, and we suggest that the current MS4 permit provisions governing reporting of inspection information, combined with requirements to notify the Regional Board of all events of non-compliance, are sufficient to inform the Regional Board of the water quality performance for industrial and construction sites.  Currently, any notice of non-compliance issued to the construction site is already being faxed to the Regional Board. Also, any industrial sites that are or should be covered by Statewide General Storm Water Permit are referred to the Regional Board as soon as a finding of non-compliance is made. These notification procedures, combined with the current annual reporting of all inspections performed for both compliant and non-compliant sites appear to provide sufficient information to the Regional Board.	Eliminate new quarterly reporting requirements in favor of retaining notices and referral for non-compliance currently provided to the Regional Board together with annual reporting in the Program Effectiveness Assessment (PEA).

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				The City cannot identify any information that would improve the Regional Board's ability to address non-compliance that would be gained by the new, more stringent reporting requirement. The new more stringent reporting requirement would, however, result in substantial additional costs at a time when local government coffers are least able to absorb those costs.	
32	VII.1	36	The permittees shall continue to prohibit all illicit connections to the MS4s through their ordinances, inspections, monitoring programs, and enforcement actions	ICs can only be prohibited by the ordinance, and ordinances should not address inspections, monitoring programs or other activities designed to implement the ordinance.  As noted before, legal authority (ordinances and permits) already prohibit ICs and it is the through program implementation activities (inspection, monitoring, etc.) that IC's are identified and eliminated.	We recommend revising the findings and requirements to eliminate the confusion between legal authority documents and the documents that set forth program parameters for implementing that legal authority. We suggest a revision to indicate that the co-permittees shall continue to pursue the identification and elimination of all illicit connections to the MS4s prohibited by local ordinances through their inspection programs, monitoring programs, and other enforcement activities.
33	VIII.2	37	Each permittee shall continue to maintain and update (at least on a quarterly basis) an inventory of all construction sites within its jurisdiction for which building or grading permits have been issued...	Section VIII.2 requires construction site inventory to be updated on a quarterly basis. The quarterly update will be burdensome and unnecessary as it will just be created to satisfy a draft tentative order requirement, but won't meaningfully contribute to the database used to guide inspections, since construction project timelines are not short enough to result in meaningful additions to the inventory within a period of three months.	The construction inventory should be updated twice yearly, including once in September in preparation for the rainy season, and rainy season inspections. The construction inventory should only be submitted to the Regional Board on an annual basis in preparation for the program effectiveness assessment report.
34	VIII.4	37	Each permittee shall conduct construction site inspections for compliance with its ordinances (grading, Water Quality Management Plans, etc.), local permits (construction, grading, etc.), the Model Construction Program and the Construction Runoff Guidance Manual, both developed by the permittees.	The ordinances do not include a reference to project WQMPs, which are required for the development projects under the DAMP and/or LIPs. Project WQMPs are post-construction documents.	Remove the examples in the parenthesis.  Revise draft tentative order language to reference that each co-permittee shall conduct construction site inspections for compliance with its ordinances, local permits, the Model Construction Program and the Construction Runoff Guidance Manual, both developed by

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35	IX.3	39	Each permittee shall conduct industrial facility inspections for compliance with its ordinances, permits and this order. Inspections shall include a review of material and waste handling and storage practices, written documentation of pollutant control BMP implementation and maintenance procedures and digital photographic documentation for any water quality violations, as well as, evidence of past or present unauthorized, non-storm water discharges and enforcement actions issued at the time of inspection. All high priority facilities identified in Section IX.2 shall be inspected at least once a year and a report on these inspections shall be submitted in the annual report for each year.	Section IX.3 states that inspections shall include a review of written documentation of pollutant control BMP implementation and maintenance procedures. This written documentation in the form of storm water pollution prevention plan (SWPPP) is only required for facilities with industrial storm water permits. The burden of SWPPP review for compliance with the State General Industrial Permit or individual industrial NPDES permits should remain with the Regional Board staff. The City's inspections should continue to assure no ICs/IDs and compliance of facilities with City water quality ordinances and requirements	the permittees. Please clarify the intent of the industrial facility document inspections consistent the City's comments.
36	X.1	40	Each permittee shall continue to maintain and quarterly update an inventory of the types of commercial facilities/businesses listed below within its jurisdiction...	Section X.1 requires quarterly updates on the inventory of commercial facilities as compared to annual updates for industrial facilities, which generally pose a greater threat to water quality. The costs and expenses of quarterly updates to the inventory will not provide significant water quality benefits, given the period of time required to actually complete inspections for each group of commercial facilities to be assessed.	The inventory of commercial facilities should be updated on an annual basis, consistent with requirements for industrial facilities which generally pose a higher threat to water quality.
37	X.1	40-41	1. Each permittee shall continue to maintain and quarterly update an inventory of the types of commercial facilities/businesses listed below within its jurisdiction. As required under the third term permit, this inventory must be maintained in a computer-based database system (Commercial Database) and must include relevant information on ownership, size, location, etc. For fixed facilities, inclusion of a Geographical Information System (GIS), with latitude/longitude (in decimals) or NAD83/WGS84 compatible formatting is required. For water quality planning purposes, the	Section X.1 requires 11 new, additional categories to be added to the commercial facilities inventory. It does not make sense to increase the commercial facility inspection burden so significantly in the time of budget constraint, and there are no indications in the ROWD or other reports that commercial facilities are currently such significant sources of pollutants that regulation of these facilities must be so severely strengthened. Further, many of the new commercial facility categories appear to overlap with industrial facility categories, creating confusion regarding the inspection program that	We concur with the County comments that the new categories of commercial facilities should be deleted from the draft tentative order until such a time that these types of facilities have been determined to contribute a significant pollutant load to the MS4.

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			<p>permittees should consider using a parcel-level GIS that contains an inventory of the types of facilities/discharges listed below.</p> <p>Commercial facilities may include, but not be limited to:</p> <ul style="list-style-type: none"> <li>a. Transport, storage or transfer of pre-production plastic pellets.</li> <li>b. Automobile mechanical repair, maintenance, fueling or cleaning;</li> <li>c. Airplane repair, maintenance, fueling or cleaning;</li> <li>d. Marinas and boat repair, maintenance, fueling or cleaning;</li> <li>e. Equipment repair, maintenance, fueling or cleaning;</li> <li>f. Automobile impound and storage facilities;</li> <li>g. Pest control service facilities;</li> <li>h. Eating or drinking establishments, including food markets and restaurants;</li> <li>i. Automobile and other vehicle body repair or painting;</li> <li>j. Cement mixing, concrete cutting, masonry facilities; Building materials retail and storage facilities;</li> <li>k. Portable sanitary service facilities;</li> <li>l. Painting and coating;</li> <li>m. Animal facilities such as petting zoos and boarding and training facilities;</li> <li>n. Nurseries and greenhouses;</li> <li>o. Landscape and hardscape installation;</li> <li>p. Pool, lake and fountain cleaning;</li> <li>q. Golf courses;</li> <li>r. Other commercial sites/sources that the permittee determines may contribute a</li> </ul>	should apply.	

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			<p>significant pollutant load to the MS4; and,</p> <p>s. Any commercial sites or sources that are tributary to and within 500 feet of an area defined by the Ocean Plan as an Area of Special Biological Significance.</p>		
38	X.2 & X.3	41	<p>2. Each permittee shall conduct inspections of its commercial facilities as indicated below...</p> <p>3. Each permittee shall conduct inspections of its commercial facilities as indicated below. To establish priorities...</p>	<p>Sections X.2 and X.3 require the inspection of all commercial facilities during the permit term, and arbitrarily mandate that at least 10% of commercial sites must be prioritized as high and inspected once a year; 40% of commercial sites must be prioritized as medium and inspected once every two years; and the remaining 50% of commercial sites must be prioritized as low and inspected once every permit cycle.</p> <p>This prioritization scheme and related inspection frequency requirements are not based on technical data or on the potential or demonstrated risk posed by commercial facilities to water quality. At the same time, the prioritization scheme and inspection frequency requirements result in a substantial increase in the number of required commercial inspections to well over 2,000, accompanied by a significant increase in costs for the City at a time of budget challenges.</p> <p>The DAMP currently contains risk-based factors and criteria that each co-permittee, including the City, is required apply to identify the high, medium and low risk commercial facilities within its jurisdiction that must be inspected, and to determine the frequency of those inspections. If the Regional Board believes that the criteria in the DAMP are not sufficient to identify adequately those high risk commercial facilities posing risk to water quality as substantial sources of pollutants,</p>	<p>The draft tentative order should be revised to mandate that the co-permittees reassess and revise as necessary the DAMP and LIP provisions governing commercial facility inspections to assure that the criteria governing prioritization of risk and frequency of inspection are sufficient to adequately identify those high risk commercial facilities posing risk to water quality as substantial sources of pollutants. Until DAMP and LIP provisions governing commercial facility inspections are revised to adequately address prioritization of risks, the City of Irvine recommends conducting inspections at 10% of commercial facilities as high priority sites. In light of the substantial staff time and other costs associated with inspections, we also recommend that Regional Board staff consider decreasing the frequency of high priority site inspections from once a year to once during the permit term as mandated in the current permit. In addition, the City of Irvine recommends dropping inspection requirements for medium and low priority sites as these facilities would not pose a threat to the environment.</p>

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				the current risk based criteria should be re-assessed and revised to function properly for their intended purpose. However, the current risk-based inspection paradigm should not be eliminated in its entirety in favor of an arbitrary prioritization and frequency of inspection scheme that will substantially increase commercial inspection costs without any identified needs or goals for improvement in water quality controls for substantial commercial pollutant sources.	
39	X.3 & X.5	41 & 42	<p>3. Each permittee shall conduct commercial facility inspections, at frequencies as determined...</p> <p>5. Information including, inspection dates, inspectors present, the written and photographic documentation results of the inspection...</p>	Sections X.3 and X.5 contain a photographic documentation requirement for all aspects of commercial facility inspection. As with industrial facility inspections, the photographic documentation should be only required when there is a water quality violation, and in a manner consistent with the procedures and constitutional protections specified in City ordinances, and state and federal laws. Since industrial facilities generally pose a greater risk to water quality, having more aggressive program for commercial facilities than for industrial facilities does not make any sense.	See preceding recommendations for Sections V.I.2, and X.1, 2. and 3
40	XI.2	43	The permittees should identify residential areas and activities that are potential sources of pollutants and develop Fact Sheets/BMPs. At a minimum, this should include: residential auto washing and maintenance activities; use and disposal of pesticides, herbicides, fertilizers and household cleaners; and collection and disposal of pet wastes. The permittees shall require residents to implement pollution prevention...	Many aspects of the proposed residential program are already covered under the public education program. As the ROWD reports, the public education program has demonstrated significant improvement in public awareness and water quality practices among residents. . The draft tentative order as proposed fails to recognize the achievements of the public education program, and instead would mandate that municipalities enact and enforce new ordinances and regulations to force residents to implement specific minimum BMPs. Those types of municipal ordinances and regulations would be extremely unpopular, and	<p>Given the investment made in, and success of that education program, the costs of the approach currently set forth in the draft tentative order, and the infeasibility of enforcing compliance with a mandatory set of minimum BMPs applicable to each resident within a municipality, we recommend that the draft tentative order be revised to retain the residential program as an element of the public education and outreach program,</p> <p>We also recommend a continuance of the Public Education Sub-Committee's outreach</p>

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				<p>therefore counterproductive, wasting much of the public education investment and achievements in residential education and practices achieved to date. Enforcing compliance by residents with mandatory BMPs would also be and cost-prohibitive.</p> <p>Under the current MS4 Permit, the co-permittees already implement and adaptively adjust a successful county-wide educational program that has improved water quality practices by residents. The Public Education Sub-Committee has developed a uniform look to the public education program and each city is using the materials that have been developed to promote the program in their respective cities.</p>	<p>strategy for educating residents on a county-wide level by having all the cities contribute their proportionate share to promote stormwater pollution prevention.</p> <p>Revise the key provision set forth in the draft tentative order as follows:</p> <p>The permittees shall <del>require</del> encourage residents to implement pollution prevention <i>measures via the public education and outreach program, as it is updated by the permittees Public Education Subcommittee during this permit term.</i></p>
41	XI.4	44	The permittees shall develop and implement control measures for common interest areas and areas managed by homeowner associations or management companies.	<p>The City of Irvine supports cooperative development by the co-permittees of public education program elements designed to educate and provide information to homeowners associations, commercial property associations, and property managers. The City is currently implementing education and outreach strategies and providing materials to these groups to encourage and educate them in the implementation of better water quality control practices. In addition, the City is implementing a pilot program with certain common interest area property managers to help them both realize economic and water quality benefits that can be attained from adoption of more sensitive irrigation and landscaping practices.</p> <p>However, common interest areas are owned by private associations, and the City has no right to enter those areas or to mandate retrofit of those</p>	Please revise the first sentence of the draft tentative order provision to state: "The permittees shall develop <del>and implement a</del> <i>public education and outreach component to encourage owners and managers to implement source control BMPs and similar control measures for common interest areas and areas managed by homeowners associations, commercial property associations, or landscape or property management companies.</i> "

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				areas except in accordance with the requirements, procedures and other protections set forth in the City's water quality ordinances, and in State and Federal laws. The draft tentative order as currently written mandates that co-permittees must develop and implement new BMPs for common interest areas, including, we presume, structural treatment control BMPs as well as source control BMPs. The co-permittees have no authority to implement new BMPs on association properties, particularly to the extent that they would require physical alteration to private property, and the provision as drafted requires co-permittees to violate private property protection and anti-trespass laws, as well as the fourth amendment of the U.S. Constitution.	
42	XII	44	NEW DEVELOPMENT (INCLUDING SIGNIFICANT RE-DEVELOPMENT)	We agree with the County comments that there is a vital need to develop a contextual approach to the revised land development provisions of the draft tentative order. Instead of seeking to establish the final, long-term countywide LID implementation and hydromodification control performance standard for new development and redevelopment upon permit adoption, these new long term performance standards need to be developed in a stakeholder driven process with the benefit of watershed and subwatershed specific information regarding physical and water quality characteristics of surface waters in the watershed, and the goal of producing a substantially revised DAMP, LIP and Model Water Quality Management Plan (WQMP) within a reasonable time frame. In the interim, based on the consensus developed among stakeholders regarding the 85 <sup>th</sup> percentile design volume treatment standard as an LID performance	See Attachment 2 and recommendations for Sections L. 61, 62, 66, and 67 above.

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				standard, the City supports adoption of that standard as an LID implementation and hydromodification control performance standard for developments where achieving that standard is technically and environmentally feasible and desirable. The City further suggests that the that the 85 <sup>th</sup> percentile design volume treatment standard would substitute for the EIA, percolation, and infiltration related performance standards currently referenced in the draft tentative order as LID implementation and hydromodification control performance standards.	
43	XII.A.2	44	Within 6 months of adoption of this order, the principal permittee, in collaboration with the co-permittees, shall develop guidance for the preparation of conceptual or preliminary WQMPs to more effectively ensure that water quality protection, including LID principals, is considered in the earliest phases of a project. The appropriate revisions to the DAMP to incorporate this guidance shall be submitted with the first annual report after adoption of this permit. Within 12 months of adoption of this order, each permittee shall revise its LIP to be consistent with the guidance. The permittees are encouraged to require submission of a conceptual WQMP as early in the planning process as possible.	This section requires that the co-permittees, within 6 months of adoption of the order, develop a model WQMP guidance document to more effectively ensure that water quality protection, including LID principles, are considered in the earliest phases of a project. The schedule for developing this guidance is overly aggressive and does not allow the time to collect appropriate information regarding watershed characteristics and stakeholder participation necessary to develop an effective guidance document. It further fails to take into account the time required for processing and adoption by local governments of revised DAMP and LIP provisions, which should precede or occur concurrently with adoption of a new model WQMP.	The Tentative Order should be modified to allow a reasonable time frame for obtaining needed information and the development of the model WQMP guidance through a stakeholder driven process, as well as sufficient time for local governmental actions necessary to process and adopt revisions to the DAMP and LIPs (there are approximately 1,4000 pages in the City's LIP). The Tentative Order should therefore be modified to allow a reasonable time frame for the Permittees to revise the DAMP as may be necessary, and for each Permittee to revise its LIP and adopt model WQMP guidance.  See also Attachment 2 and recommendations for Sections L. 61, 62, 66, and 67 above.
44	XII.A.2	44	Within 6 months of adoption of this order, the principal permittee, in collaboration with the co-permittees, shall develop guidance for the preparation of conceptual or preliminary WQMPs to more effectively ensure that water quality protection, including LID principals, is considered in the earliest	Redundant with first sentence in the same section which reads: "... shall develop guidance for the preparation of conceptual or preliminary WQMPs to more effectively ensure that water quality protection, <u>including LID principals</u> , is considered in the earliest phases of a project."	Remove last sentence in the section.

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45	XII.A.4	45	<p>phases of a project...</p> <p>In the first annual report following adoption of this permit, the permittees shall include a summary of their review of the watershed protection principles and policies in their General Plan and related documents (such as Development Standards, Zoning Codes, Conditions of Approval, Development Project Guidance, Local Coastal Plan, etc.) to ensure that these principles and policies, including LID principles, are properly considered and are incorporated into these documents...</p>	<p>Section XII A.4 requires the City to update the General Plan and other implementing ordinances, City code provisions, conditions of approval and related guidance to incorporate watershed protection principles and policies, including LID principles, in these regulatory documents. While the City appreciates the need for and is committed to protection of water quality, this requirement as written appears to impermissibly intrude on the City's land use authority in violation of the US. and California constitutions, as further discussed in the County comments. Instead, this provision should be limited to requiring submission in the annual report of a summary of the legal and policy authority established by the City to enable it to comply with the requirements of the MS4 Permit when adopted.</p> <p>In addition, this provision as currently drafted appears to mandate a separate process to be conducted at an earlier time than that process used to adopt revisions and updates to the DAMP, LIPs and model WQMPs to address requirements of the new MS4 Permit, including new LID and hydromodification control requirements. This lack of coordination and failure to integrate update processes will create amendment cycles, and additional costs and staff burden on the City. Alternatively, our General Plan and implementing ordinances could be updated as determined to be appropriate by the City to implement the requirements of the new MS4 Permit, and at the same time that the DAMP, LIP and Model WQMP are adopted to comply with Section XII.A.,2 and XII E.3A.</p>	<p>Revise the draft tentative order provisions to limit the requirement imposed on local agencies with land use authority to review of the General Plan and implementing ordinances, and reporting to the Regional Board regarding the adequacy of its legal authority to comply with the provisions of the new MS4 permit.</p> <p>Revise the draft tentative order provisions to provide for a single, integrated and concurrent process to update the DAMP, LIPs, model WQMP, and to revise any other elements of the General Plan and implementing ordinances as determined necessary by the City to assure adequate legal authority to implement the requirements of the new MS4 Permit,</p>

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46	XII.B.2	46	Each permittee shall ensure that an appropriate WQMP is prepared for the following categories of new development/significant redevelopment projects (priority development projects). The WQMP shall be developed in accordance with the approved model WQMP and shall incorporate LID principles in the WQMP.	Items f and g would potentially require treatment control BMPs for single family homes. Preparing a WQMP for each single family home would be very burdensome on new individual homeowners, and conducting treatment control BMP inspections at individual homes would be too burdensome on the City.	Do not require WQMPs or treatment control BMPs for single family residences.
47	XII.B.2.c)	47	Commercial and industrial developments, which are not subdivisions, of 10,000 square feet or more. This includes non-residential developments.	Section XII.B.2.(c) lowers the threshold criterion for commercial and industrial developments to comply with WQMP requirements from 100,000 square feet to 10,000 square feet.	The fact sheet should explain the basis for lowering the threshold criterion, the evidence indicating industrial discharges are significant sources of water quality pollution, and an evaluation of the cost to implement the new requirement after the anticipated water quality benefit from implementation is identified and explained.
48	XII.B.2.i)	47	Streets, roads, highways and freeways of 5,000 square feet of paved surface. The WQMP should address the project area. This category includes any paved surface used for the transportation of automobiles, trucks, motorcycles and other vehicles and excludes any routine road maintenance activities where the footprint is not changed.	This new requirement does not set a cost-effective or practical minimum threshold for requiring a project WQMP and retrofit of roadways to include new treatment BMPs and hydromodification controls. This minimum threshold will be even more impractical if the Regional Board adopts the consensus approach and mandates implementation of LID BMPs for the full 85 <sup>th</sup> percentile treatment design volume. . Most road projects currently do not, and should not require a project WQMP and BMP retrofit because road projects that are as small as 5,000 square feet of impervious surface do not and cannot properly involve any changes to the drainage facilities serving the roadway system. A road project is part of an interconnected roadway system served by a single storm drainage system; therefore, it's does not make sense to have a project WQMP for, and to require storm drain retrofit for one small section of roadway and storm drain facility, while 99% of the remaining road sections and the remaining storm drain system	<p>Please provide the basis for identifying even very small road projects as substantial sources of polluted runoff in the Fact Sheet. Please reconsider this new requirement mandating WQMPs and BMP retrofits for street, road, highway and freeway projects that are so small that meaningful retrofit is not feasible and will not provide significant water quality benefit, given the small area of impervious surface addressed.</p> <p>Please provide exemptions for small street, road, highway and freeway projects maintenance and expansion projects eliminating the requirement that they must prepare a project WQMP and retrofit both the discrete section of an otherwise interconnected street segment and storm drain segment to incorporate BMPs, except where feasible and practical.</p>

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				remains unchanged. . It is not feasible to construct treatment control BMPs with most small road projects, and implementing 5% EIA or even LID BMPs for the 85 <sup>th</sup> percentile design treatment volume is impossible.  The basis for this change is unclear.	
49	XII.B.3.a	48	The effective impervious area (EIA) shall be limited to 5% or less, of the total project site. Also see Section C, below.	As noted above, Dr. Horner and Geosyntec experts have agreed in the stakeholder process that this EIA performance standard for LID implementation and hydromod control is technically meaningful absent a volume capture standard. We concur with the agreement reached in the stakeholder meetings and described in the County comments that the EIA standard should be replaced by the 85 <sup>th</sup> percentile design treatment volume standards.  Also, as discussed above, development projects should be exempt from satisfying any LID implementation standard, hydromodification control standard or infiltration/percolation related standard when it is not physically or technically feasible to accomplish that standard, or is otherwise not environmentally desirable. In many circumstances, it will be technically infeasible to meet particular LID implementation and hydromodification control performance standard, including most road projects, many of the dense infill and transit oriented development projects that regional planning organizations and local governments now must attempt to incorporate into their land use plans pursuant to recently adopted SB 375.	See Attachment 2 and recommendations for Sections L. 61, 62.66. and 67 above
50	XII.B.3.c	48	The effective impervious area (EIA) shall be limited to 5% or less, of the total project site. Also see Section C, below.	See preceding comment.	See preceding recommendation.
51	XII.B.5.a	49	Use of structural infiltration treatment BMPs shall	If the use of structural infiltration BMPs is feasible in	We recommend a revision of the draft tentative

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			not cause or contribute to an exceedance of groundwater water quality objectives.	the Newport Bay Watershed from a technical standpoint, it's very possible they will contribute to an exceedance of groundwater water quality objectives in addition to increasing the likelihood of contributing mobilization of groundwater pollutants, including brownfields pollutants, Nitrogen and Selenium geotechnical instability or failures, and groundwater waste	order to explicitly preclude the use of LID BMPs, and to exempt development projects from LID implementation and hydromodification control performance standards or any other infiltration or percolation standards or requirements when those projects are located in areas with shallow groundwater, significant groundwater pollution, inappropriate soils or geotechnical conditions, and/or areas of rising groundwater, where implementation of those types of BMPs and meeting those performance standards has the potential to result in groundwater waste, surface water or land inundation, geotechnical failure, migration of groundwater pollutants, or mobilization or conveyance of pollutants in the groundwater to the MS4 and/or receiving waters. Potential for these adverse environmental consequences is prevalent in the City of Irvine, for example in areas tributary to Peters Canyon Wash, and in or near brownfield redevelopment areas, including the former El Toro and Tustin military bases.
52	XII.C	50	LOW IMPACT DEVELOPMENT TO CONTROL POLLUTANTS IN URBAN RUNOFF FROM NEW DEVELOPMENT/SIGNIFICANT REDEVELOPMENT	We agree with the County comments noting that the draft tentative order improperly intrudes upon the permittees' land use authority in violation of the Tenth Amendment of the U.S. Constitution and imposes a prescriptive standard as to compliance with the draft tentative order, and concur in the approach outlined by the County and discussed in further detail above, and in Attachment 2 enclosed with these comments. The City concurs in the approach outlined by the County to use the alternative 85 <sup>th</sup> percentile design volume performance standard as discussed in further detail above, and in Attachment 2 enclosed with these comments. That design volume standard is	See Attachment 2 and recommendations for Sections L. 61, 62.66. and 67 above

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				understandable by planners, engineers and developers, is adequate to meet treatment goals of the water quality experts participating in the stakeholder meetings, and is therefore appropriate as a default standard until more watershed specific information is developed by and at the discretion of the co-permittees to prepare long term LID implementation and hydromod control standards specifically applicable within and appropriate for protection of this watershed.	
53	XII.C	50	LOW IMPACT DEVELOPMENT TO CONTROL POLLUTANTS IN URBAN RUNOFF FROM NEW DEVELOPMENT/SIGNIFICANT REDEVELOPMENT	Section XII.C requires implementation of low impact development (LID) techniques for new development and significant redevelopment projects. It will be technically infeasible and/or environmentally undesirable to implement LID techniques for a significant number of redevelopment projects in the City of Irvine. As a part of the LID program, effective impervious area (EIA) is required to be less than 5%. This is based on a misapplication of watershed based technical studies, and varies substantially depending on watershed characteristics. The City appreciates the stakeholder meetings that the Regional Board has held during the public comment period to flush out the technical aspects of EIA and alternative performance standards. The City concurs in the approach outlined by the County to use the alternative 85 <sup>th</sup> percentile design volume performance standard as discussed in further detail above, and in Attachment 2 enclosed with these comments..	The LID and hydromodification control requirements should be limited to new development projects only where LID is technically and economically feasible, and a sufficient list of exceptions should be developed to address and identify those situations where compliance with those requirements will be technically infeasible or environmentally undesirable.  See Attachment 2 and recommendations for Sections L. 61, 62.66. and 67 above
54	XII.C.1	50-51	a. The permittees shall incorporate LID site design principles that reduce runoff to the maximum extent practicable during each phase of priority development projects. The permittees shall	This section identifies a list of site design BMPs that should be taken under consideration during each phase of priority development projects. The list provided, however, is a confusing mix of goals, tasks, and work products which does not provide a	Separate the provisions to distinguish between recommended site design BMPs, and other goals for the new development and redevelopment program. Work products that are required for compliance with the MS4

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			require that each priority development project include site design BMPs during development of the preliminary and final WQMPs...	clear basis for compliance.	Permit should be specified in a separate section of the draft tentative order.
55	XII.C.2	51	The permittees shall require the following source control BMPs for each priority development project, unless...	It is not clear why the major discussion of LID also includes prescribed source control BMPs.	For the purposes of clarity, Section XII.C.2 should be deleted from this section of the draft tentative order and proposed as separate section.
56	XII.C.4	53	a) The permittees may allow a project proponent to substitute treatment control BMPs for LID measures if the following conditions are met...	Section XII.C.4 states that treatment control BMPs can be used in lieu of LID measures as long as various conditions are met. One of the conditions is for EIA to be 5% or less. How does one achieve EIA of 5% or less without implementing LID? What value does an exemption from the performance standard have if it's only available for projects that meet the performance standard?	Delete this section, as it provides a useless EIA performance standard and fails to provide a meaningful exemption.
57	XII.D	54	HYDROLOGIC CONDITIONS OF CONCERN (HYDROMODIFICATION)	Section XII.D requires 5% or less hydrologic impact from new development and significant redevelopment projects. It is not clear how this standard would be measured, or the relationship of this standard to the many other hydrological standards set forth in section XII.D. Which standard is the default performance standard for hydrological control? Is it technically feasible and environmentally desirable to meet whichever standard is the default performance standard in the majority of new development and redevelopment circumstances, particularly where infiltration, percolation or meaningful runoff volume reductions cannot be achieved on site. Does the standard allow for dense infill development, transit oriented development and similar projects now mandated by SB 375? Is it anticipated that the default hydromodification control standard can be replaced by an appropriate watershed specific standard developed on the basis of watershed specific physical and environmental characteristics and	Please revise and clarify this provision of the draft tentative order to provide the information discussed in the comment.

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58	XII.E.2	55-56	The obligation to install structural treatment control BMPs at a new development is met if, for a common plan of development, BMPs are constructed with the requisite capacity to serve the entire common project, even if certain phases of the common project may not have BMP capacity located on that ...	information with stakeholder input? There is no mention of obtaining a consistency determination from the Executive Officer in this section. Will that detail be contained in the revised DAMP as it is in the current DAMP? Is it the intent to allow co-permittees to evaluate and approve BMPs designed to serve a common project area? Because use of BMPs that serve a common project area best accommodates implementation of site design BMPs, the City of Irvine supports streamlined and simple approval procedures, and endorses co-permittee approval of these types of BMPs.	Please clarify the intent with respect to approval of common project BMPs.
59	XII.G.3	57	Prior to occupancy, the permittees shall verify through visual observation, that the BMPs are operational and functional	It will be impossible to determine visually during City inspections to assure implementation of WQMPs that BMPs are operational and functional unless it's raining because permittees cannot run non-storm water through a drainage system.	Revise the draft tentative order language to state that "Prior to occupancy, the permittees shall verify through visual observation, that the BMPs have been installed in accordance with the approved plans and project WQMP."
60	XII.H	57	CHANGE OF OWNERSHIP AND RECORDATION	Section XII.H requires permittees to establish a mechanism to ensure that appropriate easements and ownerships for long term maintenance and operation of BMPs are properly recorded in public records at the County and/or the City. The City already has a program in place to track the transfer of long-term maintenance and operation responsibilities from a developer to an appropriate operator upon completion of development. However, ownership and real property interest documents are recorded at the County Recorder's Office, not in individual cities. It will be difficult if not impossible for the City to track recording of easements and ownerships with changes in project or site ownership, and is not necessary to assure that an entity is responsible for operation and maintenance of BMPs. The recordation requirement should be left to the discretion of the	Delete reference of recording any documents at a city and explicitly allow other methods of tracking ownership and responsibility such as the Notice of Transfer of Responsibility, which was developed by the City to track transfer of operational and maintenance responsibility for BMPs and is a document filed in city records, but not recorded.

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61	XIII.J.1	58	The above provisions for LID and hydrologic conditions of concern are not applicable to projects the have an approved Water Quality Management Plan as of the date of adoption of this order.	<p>permittees.</p> <p>Under the DAMP and LIPs, project WQMPs are prepared at both (i) the conceptual level, as a planning and design document that assure consideration and inclusion of appropriate site design BMPs (many of which are the LID BMPs currently favored by water quality experts for treatment control); and (ii) the project level, to implement the concept project WQMP planning document. The current draft tentative order provision is likely to cause confusion with respect to grandfathering in that it relies on the project WQMP as the appropriate trigger fro grandfathering, without specifying which WQMP is intended. The current MS4 Permit ties grandfathering directly to land use approvals that must be obtained by development projects, and we recommend a similar approach for be incorporated into the draft tentative order to provide greater ease and certainty in identifying those projects that are grandfathered and those that are not</p>	Please revise the draft tentative order provision to specify land use approvals that will determine development projects that are grandfathered and those that are not, as the current MS4 Permit does.
62	XIII.3	58	...Through use of local print, radio and television, the permittees must ensure that the public and business education program makes a minimum of 10 million impressions per year and that those impressions measurably increase the knowledge and measurably change the behavior of the targeted groups.	There must be a clear definition for an impression. Currently an impression can consist of anything from passing a pollution prevention street banner in a car to an extended face-to-face interaction with a member of the public. We believe a much better indicator of a program's likely effectiveness is the description of the permittee's public education efforts contained in the PEA.	Consider a more effective way of evaluating the effectiveness of a public education program rather than relying on impressions. If impressions must be used, develop a standardized method of determining what qualifies as an impression.
63	XIV.7	59	Within six months of adoption of this order, the principal permittee shall evaluate the effectiveness of debris booms and determine if additional debris booms are needed to address floatables in inland streams...	(see comment for Item G.21 above)	Please clarify the Regional Board's position on the use of devices such as debris booms in waters of the U.S.
64	XIV.10	61	Each permittee shall examine opportunities to retrofit existing storm water conveyance systems and parks	The 2005 RBF Retrofit study has not, to our knowledge, been adopted or approved by the	The 2005 RBF Retrofit Study should not be mandated as the basis for co-permittee retrofit

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			and other recreational areas with water quality protection measures, where feasible. The 2005 RBF Retrofit Study may be used by the principal permittee for a system-wide evaluation in lieu of each permittee conducting its own evaluation. Within 12 months of adoption of this order, the principal permittee shall submit a proposal for additional retrofit studies that incorporates opportunities for addressing any applicable TMDL implementation plans.	principle permittee, and is still in draft form and most of the co-permittees have not had an opportunity to review the draft.	programs until the co-permittees have had an opportunity to review, comment, and approve the final draft, as required in the current MS4 permit for any program developed by the principal permittee.
65	XV. & XIV.	62	XV. MUNICIPAL CONSTRUCTION PROJECTS/ACTIVITIES  XIV. TRAINING PROGRAM FOR STORM WATER MANAGERS, PLANNERS, INSPECTORS AND MUNICIPAL CONTRACTORS	These sections are out of sequence. Section XV is shown before Section XIV.	Put sections in the proper numerical sequence.
66	XIV.2	62-63	The curriculum content should include: federal, state and local water quality laws and regulations as they apply to construction and grading activities, industrial and commercial activities; the potential effects of construction, industrial and commercial activities and urbanization on water quality; implementation and maintenance of erosion control and pollution prevention measures and sediment control BMPs; the proper use and maintenance of erosion and sediment controls; the enforcement protocols and methods established in the Drainage Area Management Plan, Local Implementation Plan, the Construction Runoff Guidance Manual, Enforcement Consistency Guide and Illicit Discharge/Illegal Connection Training Program.	We suggest that better water quality training programs will be achieved if co-permittees are allowed to tailor their programs to address the particular responsibility of the different employee groups performing water quality related tasks. Does the current draft tentative permit require that all staff involved in a co-permittee's stormwater program need to be aware of all the curriculum content described in this section? We agree that program managers should be familiar with the entire regulatory framework; we believe, however, others involved in more discrete tasks required to implement the stormwater program may only need to be aware of the regulations and procedures that affect their particular range of responsibilities. For this reason, we suggest more flexibility in tailoring content to appropriately address the areas of responsibility assigned to various trainees.	Please revise the draft tentative order to allow greater flexibility in structuring and tailoring curriculum content to best train co-permittee personnel and develop core competencies appropriate for the employee's area of responsibility.
67	XIV.3	63	The training modules for each category of trainees (managers, inspectors, planners, contractors, public works crew, etc.) should define the required	We believe proof of attending mandatory training, practical application workshops, and similar mechanisms should be a suitable alternative to a	Delete the reference to a testing requirements, certifications, and Certificates of Completion to allow co-permittees the flexibility to assure

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			competencies; outline the curriculum, a training procedure at the end of the training program and proof of completion of training (Certificate of Completion).	Certificate of Completion. These alternatives do not raise employment and labor issues, but still assure adequate participation in training programs.	participation of personnel in adequate training, while avoiding employment and labor issues.
	XIV.4	63	At least on an annual basis, the principal permittee shall provide and document training to applicable public agency staff on Fixed Facility Model Maintenance Procedure, Field Program Model Training and Drainage Facility Model Maintenance Training. The field program training should include Model Integrated Pest Management, Pesticide and Fertilizer Guidelines. Each permittee shall attend at least three of these training sessions during the term of this permit. The training sessions may be conducted in classrooms or using videos, DVDs, or other multimedia with appropriate documentation and a final test to verify that the material has been properly reviewed and understood.	This section states explicitly that the principal permittee shall provide training. We concur with the County comments that it is unnecessary and inefficient for the principal permittee or its consultant to provide training in cities, such as Irvine, with experienced program managers, particularly given the collaborative development by core permittees of a single set of core competency requirements. We do agree, however, that cities with a demonstrated or perceived deficiency may well benefit from training provided by the principal permittee. The principal permittee supports the provision of in-house training by individual cities, and this approach can be much more cost effectively implemented for those cities with in-house stormwater managers	Please revise the draft tentative order to clarify that individual cities have the option of providing in-house training rather than participating in training administered by the principal permittee or a consultant retained by the principal permittee.
68	XIV.5	63	The principal permittee shall conduct and document public employee training for model environmental review, and on how to conduct public/business education for preparation of environmental documents.	(see XIV.4 comment above)	(see XIV.4 comment above)
69	XIV.6	63	The principal permittee shall provide BMP and training information to municipal contractors to assist the contractors in training their staff. In instances where applicable municipal operations are performed by contract staff, the permittees shall require evidence that contract staff have received a level of training equivalent that listed above.	(see XIV.4 comment above)	(see XIV.4 comment above)
70	XIV.7	63	The principal permittee shall notify designated Regional Board staff via e-mail at least 30 days prior to conducting any of these training sessions.	Individual co-permittees should be required to notify designated Regional Board staff via e-mail at least 30 days prior to conducting any of their training sessions	Please revise the notice and reporting requirements related to training sessions to allow for an annual summary of training

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				if in-house training is provided in lieu of training provided by the principal permittee. It appears this notification would also apply to training new hires within 60 days of employment which would mean the co-permittees or principal permittee may possibly be required to notify the Regional Board more or less continuously. We suggest that a summary of training provided and attended by co-permittee storm water personnel in the annual report is sufficient to evaluation whether adequate training is occurring, and does not create reporting procedures that are burdensome to the co-permittees or the Regional Board.	provided and the level of co-permittee participation.
71	XIV.8	63	Each permittee shall have adequately trained all its staff involved with storm water related projects within 60 days for being assigned these duties and on an annual basis thereafter, prior to the rainy season.	Who will be designated to provide this training? It's not practical for the principal permittee to provide training to all categories of stormwater personnel every two months. If required, the principal permittee or their consult(s) would be conducting training continuously for the duration of the permit term. Therefore, it would only be practical for the co-permittees to provide the training to new hires. If the co-permittees end up with the responsibility to train new hires, it stands to reason they should also be responsible for training existing staff.	Add an option to enable individual co-permittees to provide in-house training for new hires using curriculum developed by the principal permittee in collaboration with the co-permittees.
72	XVIII.B.3.	66	...A collaborative watershed approach to implement the nitrogen and selenium TMDLs for San Diego Creek and Newport Bay is expected. As long as the stakeholders are participating in and implementing the collaborative approach, if approved, they will not be in violation of this order with respect to the nitrogen and selenium TMDLs for San Diego Creek and Newport Bay. In the event that any of the stakeholders does not participate, or if the collaborative approach is not approved or fails to achieve the TMDLs, the Regional Board will exercise its option to issue individual waste...	The draft tentative order appears to improperly regulate rising groundwater in channels, which is properly characterized as a non-point source under of the Clean Water Act. As discussed in the draft Selenium TMDL, the source of selenium in the MS4 and receiving waters is primarily rising groundwater and natural seeps into surface water channels, and should not be subject to the NPDES permit.	Please revise the draft tentative order to be consistent with the draft TMDL, and to eliminate the implication that MS4 operators are responsible for introduction of selenium into surface waters that results from natural groundwater intrusion.

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			discharge requirements or waivers of waste discharge requirements.		
73	XIX.3	73	Upon the effective date of this Order, the permittees shall start implementing the 2007 DAMP. If modifications to the 2007 DAMP are determined to be necessary, the permittees shall prepare and submit DAMP modifications to the Regional Board Executive Officer...	The co-permittees have not seen or approved the 2007 DAMP as required by the current and draft order. It will, therefore, be impossible to start implementing the 2007 DAMP upon the effective date of this order.	Ensure the co-permittees have had an opportunity to review and approve the entire Draft 2007 DAMP prior to adoption or clarify that the 2007 DAMP is intended to mean the 2006 Report of Waste Discharge (ROWD).  Define a timeline for the revision and final adoption of revisions to the DAMP (2009?) and LIPs to address all final new MS4 Permit requirements, that will take into account not only a reasonable time for co-permittees and stakeholders to develop the new provisions, but also sufficient time to properly process and provide for the adoption of revisions to the DAMP and LIPs by local governments.
74	XIX.4	73-74	The Management Committee shall meet at least six times a year to discuss issues related to permit ...	Has the Permittee Committee's name been changed to the Management Committee?	Please clarify
75	XXI.5	75	<u>Within six months of adoption of this order</u> , the permittees, in coordination with the Orange County Fire Chiefs Association, shall develop a list of appropriate BMPs to be implemented to reduce pollutants from training activities, fire hydrant/sprinkler testing or flushing, non-emergency fire fighting and any BMPs feasible for emergency fire fighting flows.	BMPs should not be required for emergency fire fighting under any circumstances.	Delete BMP requirement for emergency fire fighting.

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### **Low Impact Development (LID) and Hydromodification Control**

The City supports the comments submitted by the principle permittee, the County of Orange, in its February 13, 2009 comment letter, and attachments A, B, and C to that comment letter (the "County Comments"), all of which address the November 10, 2008 First Draft of Order R8-2008-0030 ("draft tentative order"). These comments supplement the County Comments addressing LID and hydromodification control provisions and concepts currently set forth in the draft tentative order, including, without limitation, Findings 60 through 63, and Section XII of the draft tentative order.

As noted in the County Comments, the City of Irvine believes there is a vital need to develop a contextual approach to the revised LID and hydromodification control provisions of the draft tentative order. Instead of seeking to establish a Countywide performance standard for LID implementation and hydromodification control upon Permit adoption, these new requirements need to be developed in a stakeholder driven process with the goal of producing a substantially revised Model Water Quality Management Plan (Model WQMP) within 12-24 months.

The preparation of the revised Model WQMP would incorporate the development and analysis of information, mapping and data as necessary to integrate and address treatment SUSMP, LID and hydromodification requirements informed by consideration, on a watershed-by-watershed basis, of the opportunities and constraints presented by the existing physical characteristics of each watershed, including the existing urbanized landscape, water balance characteristics, the ecological condition of individual stream systems, groundwater conditions, including existing contamination and groundwater elevations, topography and other key characteristics relevant to establishing appropriate LID implementation and hydromodification control strategies and performance standards. The City believes that a critical portion of the data, information, and mapping that must be developed during the preparation of a Model WQMP that establishes appropriate LID implementation and hydromodification control standards for the Newport Bay Watershed is comprised of that information, data and mapping discussed in the Geosyntec White Papers 1, 2 and 3 submitted to the Regional Board during the stakeholder meetings held during this first public comment period on the draft tentative order expiring February 13, 2009 (the Comment Period).

As noted by the County Comments, the City of Irvine is concerned about draft tentative order provisions mandating performance standards for LID implementation and control hydromodification without first collecting, developing and analyzing the data, information and mapping outlined above and in White Papers 1, 2, and 3. As discussed in our stakeholder meetings and those White Papers, the January 2009 report entitled Low Impact Development Metrics in Stormwater Permitting, and based on a review of other approaches taken to LID implementation and hydromodification control outlined in the County Comments, the City of Irvine has

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concluded that one-size-fits all performance standards mandating specific percentages of Effective Impervious Area (EIA) and/or absolute and inflexible minimum volumes that must be percolated or infiltrated on a project-by-project, site-by site basis, or even sub-watershed or watershed basis, without consideration for existing physical conditions that may characterize each site, project, sub-watershed or watershed is not appropriate and may be counterproductive for a number of reasons, including the following:

- Specific performance metrics for Low Impact Development (LID) are the subject of contention among experts.
- As discussed in the stakeholder meetings, and as Dr. Richard Horner has concurred, EIA is not a meaningful metric to govern project development unless combined with appropriate volume design standards;
- Without information regarding particular physical characteristics of the new development and redevelopment project sites to be regulated (information that is proposed for development by the co-permittees as part of the Model WQMP revision), including information regarding water balance (including anticipated an appropriate evapotranspiration rates), groundwater quality, groundwater elevation, soils characteristics, geotechnical constraints, susceptibility of receiving waters to hydromodification and destabilization, potential for advantages infiltration to groundwater and in-ground water storage, and the potential for mobilization of groundwater containing high levels of Selenium and Nitrogen, or other anthropogenic contaminants found at or near brownfields redevelopment sites (such as El Toro and Tustin closed military bases), a performance standard based on a specific volume of water that should be percolated or infiltrated cannot be determined in a manner that assures the standard is technically feasible and properly protective of the environment; and
- Absolute standards do not allow for implementation of other environmental policy goals in land use planning, including densification of existing development, implementation of infill and brownfields reuse projects, and encouraging mixed use, live-work, and transit oriented development.

As a result, the City of Irvine recommends that in order to properly and protectively ensure feasibility of compliance as well as water quality benefits associated with LID implementation and hydromodification control performance standards and metrics, the permittees must develop an integrated and contextual approach focused on enhanced treatment as well as volume reduction through an information driven stakeholder process incorporating input from LID designers, academia engaged in LID research, municipal stormwater and plan check staff, and environmental groups. In this way, requirements can be determined that more effectively emphasize LID treatment benefits, set physically and environmentally appropriate and protective levels of runoff volume reduction, and assure LID and hydromodification control implementation, while at the same time assuring technical feasibility, water quality protection and environmental desirability. With these goals in mind, the City of Irvine

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supports the County's request that Section XII.C.3. be rewritten to provide for the development of a contextual approach for the renewal of the Orange County MS4 permit.

The City of Irvine also requests, based on the expert technical information and consensus points 1-3 reached in stakeholder meetings and outlined in the County's Comments that the Regional Board reconsider the metric that is most appropriate for use in setting LID implementation and hydromodification control performance standards. The City suggests that Section XII.C.3. should be re-written to expressly provide for development of performance standards based on a design volume metric, rather than an EIA or absolute volume infiltration and percolation metric.

As established in our stakeholder meetings, an EIA standard without a design volume metric is meaningless, but the experts agree as noted in the points of consensus that a design volume metric can be effective without an EIA standard. Therefore a design volume metric is preferable. In addition, designers, planners, engineers and developers, as well as water quality control experts all understand the meaning and technical implications of a design volume metric and related performance standard. As established in our stakeholder meetings, water quality experts do not all understand and agree upon the meaning and technical implications of an EIA performance metric.

With respect to volume infiltration or percolation standards, a design volume capture (rather than infiltration or percolation) metric was also established in the stakeholder meetings and associated information presented to be a more appropriate metric than a metric based on minimum volumes of runoff to be infiltrated or percolated. The stakeholder discussion, reports and white papers and other information considered in the stakeholder meetings together established that a technically feasible and an environmentally protective infiltration or percolation volume metric cannot be reasonably established on a regional or sub-regional basis, much less on a site-specific or project specific basis, in the absence of specific information regarding existing physical characteristics (including the information outlined regarding physical characteristics outlined above) found in a particular watershed, sub-watershed, or area.

For these reasons, the City of Irvine requests that Section XII.C.3. be rewritten to provide for the development through the Model WQMP revision process of LID and hydromodification control performance standards that are based on metrics related to design volume capture rather than either EIA or set infiltration or percolation volumes.

In addition to using a contextual approach to develop LID implementation and hydromodification control performance standards and metrics, the City of Irvine believes it is critical that the draft tentative order contain provisions expressly recognizing those situations and circumstances in which achievement of generally applicable performance standards and metrics would be inappropriate from a

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technical feasibility, environmental protection, water quality protection or environmental policy perspective. For example, the City of Irvine recommends that Section XII.B.2 (defining priority development and redevelopment projects), Section XII.C.3., Section XII.C.4, Section XII.D., and Section XII.E. be revised to establish exceptions to LID implementation and hydromodification control performance standards for new development and redevelopment projects as necessary to take into account that it is likely inappropriate to apply those performance standards due to technical infeasibility and the potential for adverse impacts on water quality and environmental protection in the following types of circumstances:

- Known pollutants of concern exist in underlying groundwater;
- Saturated soils or shallow groundwater levels (less than 10 feet bgs) exist;
- Natural soils conditions are not conducive to infiltration and cannot be effectively amended, or geotechnical stability issues are created by infiltration, percolation, or the introduction of substantial volumes of runoff into the ground at shallow and/or intermediate depths;
- Potential for mobilization of groundwater pollutants, or increased exfiltration of groundwater flows or pollutants to surface waters exist;
- Proposed discharges either directly or via a storm drain enter into an engineered, stabilized, regularly maintained, or otherwise stabilized channels, or discharge into a sump area, area under tidal influence, or other receiving water that is not susceptible to hydromodification impacts, such that hydromodification control would not result in improved stabilization or receiving water quality; and
- Redevelopment projects are proposed that will reduce existing impervious surface in an urbanized watershed, and provide for increased density, or use of a particular development site consistent with transit oriented development, mixed use or live-work infill, brownfields reuse, and similar environmentally protective land use planning goals and paradigms encouraged and mandated by recently enacted environmental protection legislation and policies, including AB 32 and SB 375.

In providing for these exceptions to LID implementation and hydromodification control performance standards, we would further request that the Regional Board consider revisions to the draft tentative order provisions listed above that take into account the following critical concept:

- No in lieu programs or credit programs currently exist. They could only be developed after preparation of the revised Model WQMP. Therefore, any requirement that projects must provide offsite mitigation or contributions to regional or sub-regional programs that would be applicable in the upcoming permit term seems a bit unrealistic. In any event, if technical or environmental constraints make compliance with LID implementation or hydromodification control performance standards technically or environmentally infeasible or inappropriate, offsite mitigation and in lieu requirements cannot be imposed

## ATTACHMENT 2

on such projects until and unless the information is developed and available to allow projects to effectively participate in offsite, sub-regional or regional mitigation programs.

To the extent that the Regional Board has determined that an interim or default performance standard is necessary for LID implementation and hydromodification control, the City of Irvine supports the approach to an interim hydromodification control standard discussed in the County Comments. Currently, co-permittees have been able to adequately protect susceptible receiving water bodies from hydromodification control using current provisions of the DAMP related to identification, analysis and control measures for hydrologic conditions of concern. With respect to an interim or default LID implementation standard, the City would supplement the County Comments by suggesting that consideration of all of the above comments related to performance standards, metrics, and exceptions discussed above are critically important to both a long-term, contextually developed LID implementation standard as well as an interim or default LID implementation standard. Accordingly, the information provided in White Paper #4, and the January 2009 report entitled Low Impact Development Metrics in Stormwater Planning should guide development of any “default” or “interim” LID implementation and hydromodification control standards included by the Regional Board in the draft tentative order.

With respect to timing, the County Comments note that the development of appropriate LID and hydromodification control performance standards and metrics and incorporation of those standards into a Model WQMP is anticipated to require 24 months. However, the development of a revised Model WQMP is just one step in the process of effectively promulgating new performance standards and metrics. Consequently, the City of Irvine recommends revisions to the draft tentative order provisions as necessary to recognize that additional time will be necessary for co-permittees to further incorporate the revisions of the Model WQMP into the DAMP, LIPs, and local General Plans and implementing ordinances, regulations, guidelines and policies. Therefore, the draft tentative order should provide for a sufficient period of time after the 24 months required to develop a revised Model WQMP to incorporate those standards into other guidance and implementing documents. Similarly, additional time will be required after development of the revised Model WQMP to develop and implement in lieu or offsite mitigation programs, and the draft tentative order should be revised to allow for those programs to be implemented prior to requiring new development or significant redevelopment to provide any offsite mitigation.